

CLAIM AMENDMENTS

1. (currently amended): A method for preventing or treating male erectile dysfunction or female sexual arousal disorder, which method comprises administering to a mammal ~~to whom~~ for whom such prevention or treatment is needed or desirable, an effective amount of

a) ~~—vascular endothelial growth factor (VEGF) or a functional derivative or fragment thereof, or a nucleic acid encoding said VEGF or functional derivative or fragment thereof, or an agent that enhances production and/or said male erection or female sexual arousal stimulating function of said VEGF, or~~

b) ~~—a functional derivative or fragment of brain-derived neurotrophic factor (BDNF), or a nucleic acid encoding a BDNF protein or functional derivative or fragment thereof, or an agent that enhances production and/or said male erection or female sexual arousal stimulating function of said BDNF, or a functional derivative or fragment thereof, or~~

e) ~~—basic fibroblast growth factor (bFGF) or a functional derivative or fragment thereof, or a nucleic acid encoding said bFGF or functional derivative or fragment thereof, or an agent that enhances production and/or said male erection or female sexual arousal stimulating function of said bFGF~~ protein,

thereby preventing or treating said male erectile dysfunction or female sexual arousal disorder in said mammal.

2-3. (canceled)

4. (currently amended): The method of claim 1, wherein the mammal is a human and the bFGF, ~~or a functional derivative or fragment thereof, or the nucleic acid encoding bFGF, or a functional derivative or fragment thereof,~~ protein is of human origin.

5. (currently amended): The method of claim 1, wherein

- a) ~~the VEGF protein or nucleic acid, or a functional derivative or fragment thereof,~~
- b) ~~the functional derivative or fragment of the BDNF protein, or the nucleic acid encoding the BDNF protein or the functional derivative or fragment thereof; or~~
- e) ~~the bFGF protein or nucleic acid, or a functional derivative or fragment thereof,~~

~~is administered by intracavernous injection, subcutaneous injection, intravenous injection, intramuscular injection, intradermal injection, or topical administration.~~

6-8. (canceled)

9. (currently amended): The method of claim 1, wherein

- a) ~~the VEGF protein, or a functional derivative or fragment thereof,~~
- b) ~~the functional derivative or fragment of the BDNF protein, or~~
- e) ~~the bFGF protein, or a functional derivative or fragment thereof,~~ is administered via a liposome.

10. (canceled)

11. (currently amended): The method of claim 1, for preventing or treating male erectile dysfunction wherein the male erectile dysfunction is erectile dysfunction induced by or secondary to nerve dysfunction, arterial insufficiency, venous leakage, hormonal insufficiency, drug use, surgery, ~~chemotherapy or~~ chemotherapy or radiation.

12. (currently amended): The method of claim 1, for preventing or treating female sexual arousal disorder wherein the female sexual arousal disorder is sexual dysfunction induced by or secondary to nerve dysfunction, arterial insufficiency, hormonal insufficiency, drug use, surgery, chemotherapy, or radiation.

13. (currently amended): The method of ~~claim 1~~ claim 12, wherein

a) ~~—VEGF or a functional derivative or fragment thereof, or a nucleic acid encoding said VEGF or functional derivative or fragment thereof, or an agent that enhances production and/or said sexual arousal stimulating function of said VEGF, or~~

b) ~~—the functional derivative or fragment of the BDNF protein, or a nucleic acid encoding said BDNF protein or functional derivative or fragment thereof, or an agent that enhances production and/or said sexual arousal stimulating function of said BDNF protein or a functional derivative or fragment thereof, or said BDNF nucleic acid, or~~

e) ~~—the~~ bFGF or a functional derivative or fragment thereof, or a nucleic acid encoding said bFGF or functional derivative or fragment thereof, or an agent that enhances production and/or said sexual arousal stimulating function of said bFGF, protein is administered in an amount sufficient to improve blood flow and regenerate nerve and smooth muscle in the clitoris and vaginal wall.

14. (currently amended): The method of ~~claim 1~~ claim 13, wherein

a) ~~—VEGF or a functional derivative or fragment thereof, or a nucleic acid encoding said VEGF or functional derivative or fragment thereof, or an agent that enhances production and/or said sexual arousal stimulating function of said VEGF, or~~

b) ~~—the functional derivative or fragment of the BDNF protein, or a nucleic acid encoding said BDNF protein or functional derivative or fragment thereof, or an agent that enhances production and/or said sexual arousal stimulating function of said BDNF protein, functional derivative or fragment thereof, or said BDNF nucleic acid, or~~

e) ~~—the~~ bFGF or a functional derivative or fragment thereof, or a nucleic acid encoding said bFGF or functional derivative or fragment thereof, or an agent that enhances production and/or said sexual arousal stimulating function of said bFGF, protein is administered in a cream or via injection to the clitoris and vaginal wall of the patient.

15. (currently amended): The method of ~~claim 1~~ claim 11, wherein

a) ~~VEGF or a functional derivative or fragment thereof, or a nucleic acid encoding said VEGF or functional derivative or fragment thereof, or an agent that enhances production and/or said male erection or female sexual arousal stimulating function of said VEGF, or~~

b) ~~the functional derivative or fragment of the BDNF protein, or a nucleic acid encoding said BDNF protein or functional derivative or fragment thereof, or an agent that enhances production and/or said sexual arousal stimulating function of said BDNF protein, functional derivative or fragment thereof, or said BDNF nucleic acid, or~~

e) ~~the bFGF or a functional derivative or fragment thereof, or a nucleic acid encoding said bFGF or functional derivative or fragment thereof, or an agent that enhances production and/or said male erection or female sexual arousal stimulating function of said bFGF, protein is~~ administered by intracavernous injection.

16-20. (canceled)

21. (currently amended): The method of claim 1, ~~where the~~ wherein the bFGF protein is administered at about 10-200 mcg/70 Kg body weight about once every two to six months.

22. (canceled)

23. (new): The method of claim 1, which further comprises administering an effective amount of vascular endothelial growth factor (VEGF) protein.

24. (new): The method of claim 23, wherein the VEGF protein is administered at about 10-200 mcg/70 Kg body weight about once every two to six months.

25. (new): The method of claim 1, which further comprises administering an effective amount of brain derived neurotrophic factor (BDNF) protein.

26. (new): The method of claim 1, wherein the BDNF protein is administered at about 10-200 mcg/70 Kg body weight about once every two to six months.

27. (new): The method of claim 23, which further comprises administering an effective amount of brain derived neurotrophic factor (BDNF) protein.

28. (new): The method of claim 27, wherein the BDNF protein is administered at about 10-200 mcg/70 Kg body weight about once every two to six months.